

EXHIBIT D

HONEYWELL ABBREVIATION & ACRONYM DICTIONARY

- = Honeywell term

-

A

AAIB - Air Accident Investigation Branch: British equivalent of NTSB

a/c - aircraft

AC - Advisory Circular

a/l - airline

ACARS - Aircraft Communications Addressing and Reporting System

ACAS - Aircraft Collision Avoidance System

AD - Airworthiness Directive: FAA regulatory notice

A/D - Analog-to-Digital

Ada - A higher order programming language developed during the 1970s for the DOD (note: not an acronym, named for first computer programmer, Ada Augusta Byron)

ADC - Air Data Computer

ADF - Automatic Direction Finder: a navigation receiver

ADI - Attitude Director Indicator

ADIRS - Air Data Inertial Reference System*

ADIRU - Air Data Inertial Reference Unit*

ADM - Air Data Module

ADR - Air Data Reference

ADS - Air Data System

ADS - Automatic Dependent Surveillance: a potential feature for a/c position reporting, e.g., via SATCOM

ADS-B - ADS-Broadcast

ADT - Air Data Tester

AEEC - Airlines Electronic Engineering Committee

AES - Aircraft Earth Station

AFCS - Automatic Flight Control System

AFIS - Airborne Flight Information Service

AFMS - Advanced Flight Management System*

AFS - Auto Flight System: MD-11, integrates autopilot, CAT II flight director and autothrottle functions*

AGL - above ground level

AHRS - Attitude-Heading Reference System

AHS - American Helicopter Association

AIA - Aerospace Industries Association

AIAA - American Institute of Aeronautics and Astronautics

AIM - Airman's Information Manual

AIMS - Airplane Information Management System (Boeing 777)

ALPA - Airline Pilots Association

ALT - altitude

ALTN - alternate (airport)

AM - Amplitude Modulation

AMC - Avionics Maintenance Conference

AMD - Advisory Map Display*

AMI - Airline Modifiable Information*

AMLCD - Active Matrix Liquid Crystal Display

AMOSS - Airline Maintenance and Operation Support System
AMSS - Aeronautical Mobile Satellite Service
ANSI - American National Standards Institute
ANSIR - Advanced Navigation System Inertial Reference*
ANP - Actual Navigation Performance
AOA - angle-of-attack
AOG - Aircraft-On-Ground
AOPA - Aircraft Owners and Pilots Association
A/P - Autopilot
APU - Auxiliary Power Unit
ARINC - Aeronautical Radio, Incorporated: a nonprofit corporation owned by member airlines to define form, fit and function of avionics equipment
 ARNIC 429 - standard for broadcast digital information transfet systems for general applications
 ARNIC 561 - Inertial navigation system specifications
 ARNIC 571 - Inertial sensor attitude-heading reference system specifications
 ARNIC 575 - Digital air data system specifications
 ARNIC 700-series - All-digital equipment specifications for new-generation transport category aircraft
ARSA - Airport Radar Service Area
ASC - Aircraft System Controllers: MD-11, computers and control panels which automate many of the flight engineer control/monitoring functions from the DC-10
ASCB - Avionics Standard Communication Bus
ASCII - American Standard for Information Exchange
ASE - Airline-Selected Equipment*: vs. SFE; see also, BFE
ASI - Airspeed Indicator
ASIC - Application-Specific Integrated Circuit
ASL - above sea level
***A-SMGCS** - Advanced Surface Movement Guidance and Control System (Airport Systems)
ASME - American Society of Mechanical Engineers
ASRS - Aviation Safety Reporting System
A/T - autothrottle
ATA - Air Transport Association
ATC - air traffic control
ATCRBS - Air Traffic Control Radar Beacon System
ATE - Automatic Test Equipment: e.g., the STS-1000
ATI - Air Transport Indicator: standard case sizes ranging nominally from 2ATI - 6ATI
ATLAS - Abbreviated Test Language for Avionics Systems
ATM - Air Traffic Management
ATN - Aeronautical Telecommunications Network
ATR - Air Transport Radio: ARINC form-factor/standard case dimensions; 1 ATR = 8 MCU (also, Austin Trumbull Radio standard design)
ATS - Air Traffic Services
ATS - Air Transport Systems*
AUSRIRE - All Union Scientific Research Institute of Radio Equipment: CIS (former Soviet) agency
AWLU - Aircraft Wireless LAN Unit
AZ - azimuth: angular measurement in horizontal plane

B

BAe - British Aerospace
BCA - Boeing Commercial Airplanes
BCAS - Business and Commuter Aviation Systems*
- Beacon Collision Avoidance System: forerunner of TCAS
BEA - Bureau d'Enquetes Accidents: French equivalent of NTSB
BFE - Buyer-Furnished Equipment: not supplied as standard equipment by airframe mfg; selected by customer (see ASE)
BIT - Built-in Test
BITE - Built-in Test Equipment
BPS - Bits Per Second
B-NAV - Basic Area Navigatin: concept of easing congestion in European airways by requiring aircraft to be fitted with equipment that will allow more direct routings by ATC

C

CAA - Civil Aviation Authority (U.K. and other countries)
CAB - Civil Aeronautics Board
CAD/CAM - Computer Aided Design/Computer Aided Manufacture
CADC - Central Air Data Computer: an analog system
CAS - Calibrated Airspeed
- Commercial Aviation Systems*
CAS-SPO - Commercial Aviation Systems-Sensor Products Operation*
CAT - clear air turbulence: high altitude turbulence encountered where no clouds are present, (but coffee usually is.)
CAT I - Category I flight conditions: allows operation down to a 200 ft. decision height (DH) and with runway visual range not less than 2600 ft.
CAT II - Category II flight conditions: procedure which provides for approach to height above touchdown not less than 100 ft., runway visual range not less than 1200 ft.
CAT IIIA - Category IIIA flight conditions: no decision height minimum, runway visual range not ss than 700 ft.
CAT IIIB - Category IIIB flight conditions: no decision height minimum, runway visual range not less than 150 ft.
CCA - Circuit Card Assembly
CDI - Course Deviation Indicator
CD-ROM - Compact Disc-Read Only Memory
CDS - Common Display System*
CDU - Control-Display Unit: part of FMS
CFDS - Centralized Fault Display System (MD-11)*
CFIT - Controlled Flight Into Terrain
CG - Center of Gravity
CMC - Central Maintenance Computer
CMOS - Complementary Metal Oxide Semiconductor
CMU - Communications Management Unit
CNS/ATM - Communication, Navigation, Surveillance/Air Traffic Management (supersedes "FANS" terminology)
COTS - Commercial Off-The-Shelf
CPA - Closest Point of Approach (TCAS)
C/PDLC - Controller/Pilot Data Link Communications

CRM - Cockpit Resource Management or Crew Resource Management (the latter term has tended to displace former, recognizing a broader scope of the concept)
CRT - Cathode Ray Tube: display unit
CTO - Central Technical Operations*
CVR - Cockpit Voice Recorder

D

D/A - Digital-to-Analog Conversion
DAC - Douglas Aircraft Company (unit of McDonnell Douglas)
DADC - Digital Air Data Computer
DASA - Deutsche Aerospace (German aerospace organization)
dB - decibel: acoustic measurement unit
DDRMI - Digital Distance Radio Magnetic Indicator*
DEU - Display Electronics Unit
DFDAU - Digital Flight Data Acquisition Unit
DFDR - Digital Flight Data Recorder
DFGC - Digital Flight Guidance Computer*
DFGS - Digital Flight Guidance System*
DG - Directional Gyro
DGAC - Direction Generale de l'Aviation Civile -- French certifying authority, equivalent of FAA
DGPS - Differential GPS
DH - Decision Height
DME - Distance Measuring Equipment
DO - Dornier
DOT - Department of Transportation (U.S.)
DR - deduced reckoning
DRAM - Dynamic Random Access Memory
DU - Display Unit
DUATS - Direct User Access Terminal System

E

EADI - Electronic Attitude Direction Indicator (see ADI)
EBDBDBD - "That's All Folks"
EEPROM - Electrically Erasable Programmable Read-Only Memory
EFIS - Electronic Flight Instrument System
EHSI - Electronic Horizontal Situation Indicator (see HSI)
EIA - Electronic Industries Association
EICAS - Engine Indication and Crew Alerting System
EIS - Electronic Instrument System (MD-11)*
ELF/FL - Elevator Load Feel/Flap Limiter
ELS - Electronic Library System*
EMI - Electromagnetic Interference
EPR - Engine Pressure Ratio
EPROM - Erasable Programmable Read-Only Memory
EPRT - Engine Pressure Ratio Transmitter

EROPS - Extended Range Operations
ETA - Estimated Time of Arrival
ETE - Estimated Time Enroute
ETP - Equal Time Point: halfway there, by time
ETOPS - Extended Twin-engine Operations

F

FAA - Federal Aviation Administration (U.S.)
FADEC - Full Authority Digital Engine (or, Electronic) Control
FAMIS - Full Aircraft Management/Inertial System*: FMS/IRS upgrade package for widebodies -- no longer offered
FANS - Future Air Navigation System (ICAO-endorsed worldwide navigation plan -- the term "CNS/ATM" is now preferred)
FAR - Federal Aviation Regulations
FBO - Fixed-Base Operator
FBL - Fly-by-light
FBW - Fly-by-wire
FBN - Fly-by-night
FCC - Federal Communications Commission (U.S.)
-Flight Control Computer
FCS - Flight Control System
FD - Flight Director
FDAU - Flight Data Acquisition Unit
FDMU - Flight Data Management Unit: FAMIS component
FDR - Flight Data Recorder
FGS - Flight Guidance System
FL - Flight Level: measured in hundreds of ft. (above 18,000 ft.)
FLIR - Forward Looking Infra-Red (radar)
FM - Frequency Modulation
FMC - Flight Management Computer
FMCDU - Flight Management Control and Display Unit (FMS)
FMCS - Flight Management Computer System
FMGC - Flight Management Guidance Computer
FMGEC - Flight Management Guidance Envelope Computer
FMS - Flight Management System
F/O - First Officer
FOD - Foreign Object Damage
FOG - Fiber Optic Gyro (see IFOG)
FQIS - Fuel Quantity Indicating System*
FSC - Fuel System Controller
FT/ADIRS - Fault Tolerant/Air Data Inertial Reference System* (777)

G

GA - general aviation: aviation operations other than military and airlines (e.g., corporate, agricultural, personal, flying clubs/schools)
GATM - Global Air Traffic Management (military version of CNS-ATM concept)

GATT - General Agreement on Trade and Tariffs
GBST - Ground-Based Software Tool
GCP - Glareshield Control Panel
GDAP - Growing Danger of Acronym Proliferation
GES - Ground Earth Station (SATCOM term)
GIE - Groupement d'Intérêt Economique: French corporate entity, grouping of mutual economic interests (e.g. Airbus)
GLONASS - Global Orbiting Navigation Satellite System: CIS satellite navigation system version of GPS
GLS - GPS Landing System
GLU - GPS Landing Unit: provides precision of GPS guidance to the runway in Cat III operations
GMT - Greenwich Mean Time: used in navigation systems; Zulu
GNS - Global Navigation System (like GPS, but broader -- now the preferred term by Honeywell)
GNSS - Global Navigation Satellite System
GNSSU - Global Navigation Satellite Sensor Unit (the GNS receiver component of a GNS)*
GO/NG - Go/No Go
GPIRS - Global Positioning/Inertial Reference System*
GPS - Global Positioning System (see GNS)
GPSSU - Global Positioning System Sensor Unit*
GPWS - Ground Proximity Warning System
GS - Groundspeed
G/S - Glide Slope

H

HAI - Helicopter Association International
HERF - High-Energy Radio Frequency or High-Energy Radiated Fields: dense electromagnetic fields created by radio/TV transmitters -- possible source of interference for electronic instruments
HF - High Frequency: 3-30 MHz
HFDL - High Frequency Data Link
HIRF - High Intensity Radiated electromagnetic Frequencies (see also, HERF)
HMCPU - Hybrid Multifunction Control-Display Unit: (757/767)*
HPA - High Power Amplifier - SATCOM component
HSI - Horizontal Situation Indicator
HUD - Head-up Display
HW - hardware
Hz - Hertz: cycles per second

I

IAC - Integrated Avionics Computer*
IAS - Indicated Airspeed
IATA - International Air Transport Association: economic association of commercial airlines
ICAO - International Civil Aviation Organization: agency of the UN
IDENT - Identification

IEEE - Institute of Electrical and Electronics Engineers
IFALPA - International Federation of Airline Pilots Association
IFE - In-flight entertainment
IFOG - Interferometric Fiber Optic Gyro (see FOG)
IFR - Instrument Flight Rules: see IMC
II - Ilyushin Design Bureau
ILS - Instrument Landing System
IM - Inner Marker (glideslope)
IMA - Integrated Modular Avionics (see AIMS)
IMC - Instrument Meteorological Conditions (see IFR)
Inmarsat - International Maritime Satellite Organization -- international cooperative of more than 50 countries that operates a global system of satellites for mobile communications, such as SATCOM.
INS - Inertial Navigation System
I/O - Input/Output
IPTN - Industri Pesawat Terbang Nusantara -- Indonesia's state-owned aerospace manufacturer
IR - Infrared
IRS - Inertial Reference System
IRU - Inertial Reference Unit: part of IRS
ISA - Inertial Sensor Assembly - part of IRS
-International Standard Atmosphere
ISDU - Inertial System Display Unit
ISO - International Standards Organization
IVSI - Instantaneous Vertical Speed Indicator

J

JAA - (European) Joint Airworthiness Authority -- founded in 1970 to develop unified European approach to aviation safety; represents 27 European countries. (See also, JAR.)
JAR - Joint Airworthiness Requirement -- issued by JAA

K

K - thousand
KHz - KiloHertz
KIAS - Indicated Airspeed in Knots
KT - Knots: nautical miles/hour

L

LAAS - Local Area Augmentation System
LADGPS - Local area differential GPS
LAN - Local Area Network
LASER - Light Amplification by Stimulated Emission of Radiation
LAT - latitude

LCD - Liquid Crystal Display
LED - Light-Emitting Diode
LEO - Low Earth Orbit
LIDAR - Light Detection and Ranging
LIP - Limited Installation Program (e.g. TCAS)
LLWAS - Low-Level Wind Shear Alert System
LNAV - Lateral Navigation
LOC - Localizer: part of Instrument Landing System
LORAN - Long-Range Navigation: electronic pulse system for oceanic navigation
Loran-C - a hyperbolic grid navigation system
LRU - Line-Replaceable Unit
LRM - Line-Replaceable Module
LSAS - Longitudinal Stability Augmentation System (MD-11)
LSI - Large Scale Integration
LSRRTI - Leningrad Scientific Research Radio Technical Institute: Soviet agency
LSS - Lightning Sensor System*

M

mb - millibars
M - Mach number: speed of a/c expressed in relation to speed of sound
M - million; mega
MAC - Mean Aerodynamic Chord
MASI - Mach Airspeed Indicator
MAPPER - Maintaining, Preparing & Producing Executive Reports*
MAU - Modular Avionics Unit*
MCA - Ministry of Civil Aviation (former USSR)
MCDU - Multifunction Control and Display Unit: part of FMS
MCP - Mode Control Panel
MCU - Modular Concept Unit (Spitzer); also defined as Minimum Configuration Unit (BCA Magazine); also, Modular Component Unit
MD - McDonnell Douglas (no hyphen)
MDAU - Maintenance Data Acquisition Unit
MEO - Medium Earth Orbit (satellite)
MFD - Multi-Function Display
MHRS - Magnetic Heading Reference System
MHz - MegaHertz: a whole lot of Hertz
MLS - Microwave Landing System
MM - Middle Marker (glideslope)
MMR - Multi-Mode receiver
MNPS - Minimum Navigation Performance Specifications
MOPS - Minimum Operation and Performance Standards/Minimum Operational Performance Standards
MOU - Memorandum of Understanding (pl: Memoranda)
MRI - Ministry of Radio Industry (USSR)
MSL - Mean Sea Level (datum for altitude measurement)
MSU - Mode Select Unit
MTBF - Mean Time Between Failures
MTBR - Mean Time Between Removals

MTBUR - Mean Time Between Unscheduled Removal

MTU - Motoren-und Turbinen Union Ludwigfelde GMBH (German engine manufacturer)

N

N1 - Engine low pressure rotor speed

NAS - National Airspace System

NASA - National Aeronautics and Space Administration (U.S.)

NAT - North Atlantic Tracks

NAV - navigation

NAVAID - Navigational Aid

NAVSAT - navigation satellite

NBAA - National Business Aviation Association

NCD - No Computed Data

ND - Navigation Display

NDB - Nondirectional Beacon

-Nav Data Base

NIH - Not Invented Here

NM - Nautical Mile: 1.15 statute miles or 1000 fathoms or 216,000 barleycorns; 60 nm = 1 degree of Earth's circumference

NMS - Navigation Management System

NMU - Navigation Management Unit

NOAA - National Oceanic and Atmospheric Administration

NOTAM - Notice to Airmen

NPRM - Notice of Proposed Rule-Making (FAA)

NTSB - National Transportation Safety Board (U.S.)

NWS - National Weather Service (U.S.)

O

OAT - Outside Air Temperature

OEM - Original Equipment Manufacturer

OM - Outer Marker (glideslope)

OMS - On-Board Maintenance System

ORT - Owner Requirements Table

P

PFD - Primary Flight Display

PIP - Product Improvement Program*

PIREP - Pilot Report

PMAT - Portable Maintenance Access Terminal

PMO - Program Management Organization*

PMS - Performance Management System*

PRF - Pulse Repetition Frequency: pertaining to radar

PROM - Programmable Read-Only Memory

Ps - Pressure, static: air data measurement
psi - pounds/square inch
Pt - Pressure, total: air data measurement
PWB - Printed wire board

Q

QFE - field elevation pressure
QNH - sea level pressure

R

RA - Radio Altitude
- Resolution Advisory (TCAS)
RAA - Regional Airline Association
RADAR - Radio Detection And Ranging
RAE - Royal Aircraft Establishment (Farnborough)
RAIM - Receiver autonomous Integrity Monitoring (GPS)
RAM - Random Access Memory
RDDMI - Radio Digital Distance Magnetic Indicator*
RDI - Radio Direction Indicator
REACT - Rain Echo Attenuation Compensation Technique: Honeywell weather radar feature*
RF - radio frequency
RFI - Request For Information
RFP - Request For Proposal
RFQ - Request For Quotation
RFU - Radio Frequency Unit - SATCOM component
RHF - Ridiculously High Frequency
RISC - Reduced Instruction Set Computer
RLD - Rijks Luchtvaart Dienst: Dutch equivalent of FAA
RLG - Ring Laser Gyro
RMI - Radio Magnetic Indicator
RMU - Radio Management Unit
RNAV - Area Navigation
RNP - Required Navigation Performance
ROM - Read-Only Memory
RPK - Revenue Passenger-Kilometers: number of revenue passengers carried times distance in KMs
RPM - Revenue Passenger-Miles (see RPK)
RPZ - Ramensky Priborostroitelny Zavod (Russian avionics manufacturer)
R/T - Receiver/Transmitter
RTA - Required Time of Arrival
RTCA - a private, not-for-profit organization that brings industry and government together to address the needs of the worldwide aeronautical community. The acronym RTCA originally stood for Radio Technical Commission for Aeronautics-- but is now known simply as RTCA
RVR - Runway Visual Range
RVMS - Reduced Vertical Separation Minimums

S

SA - Selective Availability -- re GPS
SAARU - Secondary Attitude/Air data Reference Unit* (777)
SAE - Society of Automotive Engineers
SAFEBUStm - Honeywell-developed ARINC 659 cabinet bus (777)
SAIFIR - Systems Aid for Integration and Fault Reporting (777)
SAMPE - Society for the Advancement of Material and Process Equipment
SAR - Search and Rescue: usually pertaining to weather radars and navigation (BCAS)
- Some Assembly Required (Sears)
SARPS - Standard and Recommended Practices
SAT - Static Air Temperature
SATCOM - Satellite Communications
SC - Special Committee (RTCA term)
SDU - Satellite Data Unit: SATCOM component
SFE - Seller-Furnished Equipment: i.e., selected by airframe manufacturer as standard for that aircraft type
SID - Standard Instrument Departure
SIGMET - Significant Meteorological Advisory
SITA - Soci t  Internationale de T l communications Aeronautiques: cooperative, not-for-profit organization with 400 member companies dedicated to the air transport industry. Operates world's largest specialized data telecommunications network including VHF AIRCOM Service which provides air-ground communications network of ground stations.
SITS - Subsystem Integration and Test Station
SLS - Satellite Landing System*
SMART - Standard Modular Avionics Repair and Test
SMT - Surface-Mount Technology
SRC - Systems and Research Center*
STAR - Standard Terminal Arrival Route
STC - Supplemental Type Certificate: FAA certification document
STOL - Short Take-Off and Landing
SW - software

T

TA - Traffic Advisory (TCAS)
***TAIS** - Total Aircraft Information System (Aviation Services)
***TAMS** - Total Airport Management System (Airport Systems)
TAS - True Airspeed
TAT - Total Air Temperature
TBD - To Be Determined
TCA - Terminal Control Area
TCAS - Traffic Alert and Collision Avoidance System
***TEMPLE** - Terminal Management and Planning Equipment
TERPS - Terminal Instrument Procedures
TO/GA - Take Off/Go Around: operating mode
TRACON - Terminal Radar Approach Control
TSO - Technical Standard Order: performance specification and production compliance document issued by FAA

TTG - Time To Go
TTS - Time To Station
TTW - Time to Waypoint
Tu - Tupolev Design Bureau
TURB - Turbulence
TWDL - Two-way Data Link

U

UDF - Unducted Fan
UHF - Ultra High Frequency: 300-3000 MHz

V

V/STOL - Vertical/Short Takeoff and Landing
V1 - takeoff decision speed
V2 - minimum takeoff safety speed at 35'
VAC - Volts, Alternating Current
VALFAC - Validation Facility: avionics test and simulation facility*
VASI - Visual Approach Slope Indicator
VDC - Volts, Direct Current
VDGS - Visual Docking Guidance System (Airport Systems)
VDL - VHF Data Link
VDR - VHF Data Radio
VFE - maximum flap extended speed
VFR - Visual Flight Rules (see VMC)
VG/DG - Vertical Gyro/Directional Gyro
VG - Vertical Gyro
VHF - Very High Frequency: 30-300 MHz -- "straight-line" signal used for communications and navigation
VHSIC - Very High Speed Integrated Circuit
VIA - Versatile Integrated Avionics -- offshoot of Integrated Modular Avionics
VLF - Very Low Frequency: 3 KHz-30 KHz -- used for long range navigation in combination with Omega
VLSIC - Very Large Scale Integrated Circuit
VMC - Visual Meteorological Conditions (see VFR)
VNAV - Vertical Navigation
VNE - never-exceed speed
VNO - maximum structural cruising speed
VOR - VHF Omnidirectional Range
VORTAC - Combined VOR and Tacan system
VR - rotation speed
VREF - approach reference speed
VSI - Vertical Speed Indicator
VSI/TRA - Vertical Speed Indicator/Traffic, Resolution Advisory

W

WAAS - Wide area augmentation system

WBS - Weight and Balance System*

WORM - Write-Once/Read Many: optical disk technology

WPT - waypoint

WS - Windshear*

WX - Weather

WXR - Weather Radar

X

XPDR - Transponder

X/WIND – crosswind

Y

Z

Z - zillion: 1 X 10z or 10 jillion

- unit of sleep